

We claim:

1. A polymer electrochemical generator comprising:
 - a plurality of electrochemical cells, each comprising a plurality of electrochemical laminates and at least one current collecting terminal, said current collecting terminal having arms adapted to receive said plurality of electrochemical laminates;
 - a resilient heat sink material positioned adjacent and in mechanical contact with said at least one current collecting terminal, said resilient heat sink material being electrically resistive and thermally conductive; and
 - a thermally conductive structural housing having walls enclosing said plurality of electrochemical cells and said resilient heat sink material, an inner surface of at least one of said walls being positioned adjacent said resilient heat sink material and in thermal contact with said resilient heat sink material, an outer surface of said at least one of said walls being adapted to dissipate thermal energy generated by said plurality of electrochemical cells.
2. A polymer electrochemical generator as defined in claim 1, further comprising a low friction film positioned between the resilient heat sink material and the inner surface of said at least one of said walls, said film adapted to ease relative movement between said resilient heat sink material and said at least one of said walls.
3. A polymer electrochemical generator as defined in claim 1, wherein said resilient heat sink material conforms at least partially to the contours of said at least one current collecting terminal.
4. A polymer electrochemical generator as defined in claim 1, wherein said resilient heat sink material is separated into a plurality of ribbons extending along the length of said at least one current collecting terminal.

5. A polymer electrochemical generator as defined in claim 4, wherein each one of said plurality of ribbons comprises a band of low friction film positioned between the resilient heat sink material and the inner surface of said at least one of said walls.
6. A polymer electrochemical generator as defined in claim 5, wherein said band of low friction film comprises inward extensions adapted to circumscribe and separate each ribbon of resilient heat sink material from adjacent ribbons.
7. A polymer electrochemical generator as defined in claim 1, further comprising a heat exchange apparatus positioned adjacent said outer surface of said at least one of said walls, said heat exchange apparatus being adapted to transfer thermal energy from said outer surface of said at least one of said walls to a fluid medium.
8. A polymer electrochemical generator as defined in claim 7, wherein said heat exchange apparatus comprises projecting vanes adapted to dissipate thermal energy generated by said electrochemical cells.
9. A polymer electrochemical generator as defined in claim 7, wherein said heat exchange apparatus includes channels provided within said at least one of said walls, wherein heat transfer is accomplished by circulating a coolant fluid in liquid form through said channels.
10. A polymer electrochemical generator as defined in claim 8, wherein air is circulated around said projecting vanes to dissipate thermal energy generated by said electrochemical cells.
11. A polymer electrochemical generator as defined in claim 1, wherein said resilient heat sink material is in the form of pads extending along the length of said plurality of electrochemical cells.

12. A polymer electrochemical generator as defined in claim 1, wherein said resilient heat sink material is a silicone elastomer compound including a thermally conductive ceramic filler.
13. A polymer electrochemical generator as defined in claim 12, wherein said thermally conductive ceramic filler is selected from the group consisting of Beryllium Oxide, Boron Nitride, Alumina and aluminium oxide.
14. A polymer electrochemical generator comprising:
- a plurality of electrochemical cells, each comprising a plurality of electrochemical laminates and at least one current collecting terminal, said current collecting terminal having arms adapted to receive said plurality of electrochemical laminates;
 - resilient heat sink pads positioned adjacent and in mechanical contact with said at least one current collecting terminal, said resilient heat sink pads being electrically resistive and thermally conductive;
 - a thermally conductive structural housing having walls enclosing said plurality of electrochemical cells and said resilient heat sink material, an inner surface of at least one of said walls being positioned adjacent said resilient heat sink material and in thermal contact with said resilient heat sink material, an outer surface of said at least one of said walls being adapted to dissipate thermal energy generated by said plurality of electrochemical cells;
 - a low friction film positioned between said resilient heat sink pads and the inner surface of said at least one of said walls, said film adapted to ease relative movement between said resilient heat sink pads and said at least one of said walls; and
 - a heat exchange apparatus positioned adjacent said outer surface of said at least one of said walls, said heat exchange apparatus being adapted to transfer thermal energy from said outer surface of said at least one of said walls to a fluid medium.